

20021112.ba v03_n414.bam.20021112

>From ???@??? Tue Nov 12 08:51:11 2002 -0600
Message-Id: <200211121451.gACep46G019485@sco.theporch.com>
Date: Tue, 12 Nov 2002 08:50:40 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3414

BOATANCHORS Digest 3414

Topics covered in this issue include:

- 1) Loran 'A' Chains During WWII
by Jerry Proc <jerry7proc@yahoo.com>
- 2) VB-9 Vibrator
by David Stinson <arc5@ix.netcom.com>
- 3) Re: Loran 'A' Chains During WWII
by "Sandy, W5TVW" <ebjr@i-55.com>
- 4) Gonset audio interstage transformer
by Chuck Swiger <cswiger@widomaker.com>
- 5) RE: SX-28A Paper Capacitors
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
- 6) RE: SX-28A Paper Capacitors
by "russ dworakowski" <wb3fau@hotmail.com>
- 7) RE: [Milsurplus] VB-9 Vibrator
by jay_coward@agilent.com
- 8) Re: SX-28A Paper Capacitors
by Arden Allen <gumbear@pacbell.net>
- 9) Re: Gonset audio interstage transformer
by Edward Knobloch <k4pf@juno.com>
- 10) 32V-3 Component Reliability
by Al Klase <skywaves@bw.webex.net>
- 11) Re: Loran 'A' Chains Present C chains
by Dave Metz <metzd@intelos.net>
- 12) 32V-3 Component Reliability
by Al Klase <skywaves@bw.webex.net>
- 13) Re: Loran 'A' Chains Present C chains
by "Robert Nickels" <w9ran@ONERADIO.NET>
- 14) Re: Loran 'A' Chains Present C chains
by "James C. Garland" <4cx250b@muohio.edu>
- 15) Re: Loran 'A' Chains Present C chains
by Mike Feher <n4fs@monmouth.com>

Message-ID: <20021111031050.96844.qmail@web21502.mail.yahoo.com>
Date: Sun, 10 Nov 2002 19:10:50 -0800 (PST)
From: Jerry Proc <jerry7proc@yahoo.com>

Subject: Loran 'A' Chains During WWII
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Hello Group,

Recently I received an article on the deployment of Loran 'A' radionavigation chains in the North Atlantic and the Pacific during WWII. If anyone is interested in this historical article, please point your browsers to:

http://webhome.idirect.com/~jproc/hyperbolic/lora_ww2chains.html

=====

--

Regards,
Jerry Proc
E-mail: jerry7proc@yahoo.com

Do you Yahoo!?
U2 on LAUNCH - Exclusive greatest hits videos
<http://launch.yahoo.com/u2>

Message-ID: <3DCF3BAA.CE6BEA27@ix.netcom.com>
Date: Sun, 10 Nov 2002 23:10:02 -0600
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: VB-9 Vibrator
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Anyone know where I can get a good VB-9 vibrator?
Barring that, does anyone have a diagram of the
TBY vibrapack? Thanks.

Message-ID: <003601c28943\$5981fb20\$b29fcdd1@ebjr>
From: "Sandy, W5TVW" <ebjr@i-55.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Loran 'A' Chains During WWII
Date: Sun, 10 Nov 2002 23:29:46 -0600
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Interesting articles. I will download and mark these for future use.

Only early use of Loran "A" was the APN-9 which we had in a number of our old Douglas

B-26 ANG aircraft. It was sort of a pain in the butt to use properly.

One of the most popular Loran receivers was the "DX Navigator" which was very popular

on watercraft and ships for a while. Ultimately Loran "C" was added (100 khz chain)

and other navigation systems replaced Loran altogether for ships. This being the ill-fated "Omega" system that worked on VLF. It "did" work, but if lane count was lost

(which was very frequent during any kind of static or a storm!) the navigator was useless.

The first satellite navigation system was a big success (Transit..built by RCA) until it was replaced by the more accurate "GPS" system now in worldwide use.

The Loran C navigators are still widely used by helicopters flying in the Gulf of Mexico to and from oil rigs. I'd imagine they are being replaced by GPS navigators

now.

The "Omega" system has been shut down. (Long overdue! It was a colossal waste of money)

73's

Sandy W5TVW

Message-Id: <4.3.1.1.20021111082349.0269b1a0@wilma.widomaker.com>

Date: Mon, 11 Nov 2002 08:49:28 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: Chuck Swiger <cswiger@widomaker.com>

Subject: Gonset audio interstage transformer

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"; format=flowed

Gang -

The triode section of a 6AZ8 audio driver plate feeds an LC low pass filter, to transformer T1 then B+. The secondary of T1 feeds an RC phase shift network with both ends, then to both grids of a 12AU7 modulator. A replacement for T1 is desired. The Gonset GSB-100 manual only describes it as "T1 Transformer, Audio Driver, GPN 27".

Would an AES replacement like the 10,000 - 90,000 on 2" centers work (Stancore A53-C equiv.) or is the 15,000 - 135,000 multipurpose on 2.5" centers (T1 is also on 2.5" center mount holes) a better fit electrically??

I *might* be able to salvage from the old one - all I know is it was pulling down B+, getting hot and leaking wax. However, later testing w/ the VOM didn't reveal any obvious shorts. Removal of the offending part yields a nice CW rig, but I want AFSK!

Chuck
kb4new
cswiger@widomaker.com

Message-Id: <5.1.0.14.0.20021111103639.04d5a750@vuse.vanderbilt.edu>
Date: Mon, 11 Nov 2002 10:42:23 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: RE: SX-28A Paper Capacitors
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 08:14 AM 11/11/2002 +1100, you wrote:

>Firstly, with regard to the mains bypasses, you should use the special mains
>rated caps that are available from most parts houses.
>
>For the others, there should be a voltage rating to suit the highest voltage
>that is expected, plus a bit of a safety factor.

The yellow polyester caps from AES (among other suppliers) rated at 630v work just fine for all of the applications. I have installed hundreds without problems. Note that Bob's Antique Radios and Electronics (708) 352-0648 sells them at especially good prices in lots of 25.

>Recapping a SX-28 RF deck is a real character building experience. There's a
>web page somewhere by our own A.B. Bonds which describes it very well. I
>would only add that you should replace all the resistors in there while you
>are at it.

Reinforcing this notion, I'd like to add that in at least one case the mica caps in the oscillator section were incredibly drifty. I'd replace those as well, cheap insurance. Buy yourself a six-pack of 807's as a reward for doing all of this, but don't touch them until you seat the last screw in the reassembly.

73
A. B. Bonds

From: "russ dworakowski" <wb3fau@hotmail.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: SX-28A Paper Capacitors
Date: Mon, 11 Nov 2002 11:47:48 -0500
Mime-Version: 1.0
Content-Type: text/plain; format=flowed
Message-ID: <F534qANbJLnHHAs0Ho00005625@hotmail.com>

I agree, those yellow caps from AES are nice little caps.
And the nice price too! Have fun with the SX-28, especially under the bandswitch! A real course in patience. Russ.

>From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
>Reply-To: ab@vuse.vanderbilt.edu
>To: Old Tube Radios <boatanchors@theporch.com>
>Subject: RE: SX-28A Paper Capacitors
>Date: Mon, 11 Nov 2002 10:42:23 -0600
>
>At 08:14 AM 11/11/2002 +1100, you wrote:
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>doing all of this, but don't touch them until you seat the last screw in
>the reassembly.

>

>73

>A. B. Bonds

Add photos to your e-mail with MSN 8. Get 2 months FREE*.
<http://join.msn.com/?page=features/featuredemail>

Message-ID: <01A7DAF31F93D511AEE300D0B706ED9205DD64B7@axcs13.cos.agilent.com>
From: jay_coward@agilent.com
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: [Milsurplus] VB-9 Vibrator
Date: Mon, 11 Nov 2002 10:25:13 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Me too please!What is the tube used ?Rectifier or ballast?
Jay

-----Original Message-----

From: David Stinson
To: Boatanchors; Milsurplus New mailman
Sent: 11/10/02 10:10 PM
Subject: [Milsurplus] VB-9 Vibrator

Anyone know where I can get a good VB-9 vibrator?
Barring that, does anyone have a diagram of the
TBY vibrapack? Thanks.

Milsurplus mailing list
Milsurplus@mailman.qth.net
<http://mailman.qth.net/mailman/listinfo/milsurplus>

Date: Mon, 11 Nov 2002 10:49:07 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: SX-28A Paper Capacitors
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <000d01c289b3\$068a6680\$84e47443@KB6NAX>
MIME-version: 1.0
Content-type: text/plain; charset=Windows-1252
Content-transfer-encoding: 7bit

>A real course in patience.

I don't have any problem with patience. It's the TIME that's in short supply (SX-28A still waiting).

Arden Allen
KB6NAX
Vallejo, CA
gumbear@pacbell.net

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Mon, 11 Nov 2002 16:23:57 -0500
Subject: Re: Gonset audio interstage transformer
Message-ID: <20021111.162357.360.3.k4pf@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
From: Edward Knobloch <k4pf@juno.com>

Chuck Swiger <cswiger@widomaker.com> writes:

> The triode section of a 6AZ8 audio driver plate feeds an LC low
> pass filter, to transformer T1 then B+. The secondary of T1 feeds an
RC
> phase shift network with both ends, then to both grids of a 12AU7
> modulator.
> A replacement for T1 is desired. The Gonset GSB-100 manual only
describes
> it as "T1 Transformer, Audio Driver, GPN 27".
>

The transformer has a pot and 2 resistors making up a balance network across its secondary, totalling about 2K Ohms. Sounds like you need a step-down audio coupling transformer - maybe a 3 to 1 turns ratio type with the low Z side across the balance resistors.

73,
Ed k4pf@juno.com

Message-ID: <3DD04DEB.E0110F91@bw.webex.net>
Date: Mon, 11 Nov 2002 19:40:11 -0500
From: Al Klase <skywaves@bw.webex.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>

Subject: 32V-3 Component Reliability
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Collins Mavens,

I have the RF deck out of a 32V-3 that I'm working on for a friend. We'd like to put this TX on the air and keep it

there. C121, a .01 Aerovox Postage-stamp mica inside the L105 shield, is a dead short. Now, the RF deck is fairly lousey with similar capacitors. I'd prefer not to replace them all out of hand, but likewise, I don't ever want to excavate my way in here again.

Is this a random and uncommon failure, or is there a history of bad caps here? I broke the offender open and varified that it is mica, not paper. Sure glad I did find the "Micamold" disease a la R-105's and such.

73,
Al

--

Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: <http://www.webex.net/~skywaves/home.htm>

Message-Id: <4.3.2.7.2.20021111205604.00b045b0@mail.intelos.net>
Date: Mon, 11 Nov 2002 21:11:19 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: Dave Metz <metzd@intelos.net>
Subject: Re: Loran 'A' Chains Present C chains

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"; format=flowed

>

>The first satellite navigation system was a big success (Transit..built by
>RCA)

>until it was replaced by the more accurate "GPS" system now in worldwide use.

>The Loran C navigators are still widely used by helicopters flying in the
>Gulf of

>Mexico to and from oil rigs. I'd imagine they are being replaced by GPS
>navigators

While I am sure no expert, the use of the Loran C being discontinued is TBD but at least out past 2006. Seems like someone finally realized that with only GPS we were sort of betting the farm on one system. With meteor showers there is apparently a significant doubt about redundancy. Hmmm, sort of like R390's and PMP problems.

I have used an Austron 2000C loran receiver for a few years to calibrate my freq standard to something a bit better than one part in 10⁹th, maybe even 10¹⁰th. They occasionally come up on the 'bay for \$100-200. I will tell you they are not easy to sync and you will need an external rf attenuator and a scope and especially the manual. What got me interested was the need to verify the URQ 10 that I can use to check the internal freq standard of the R1051's. It's sure not sophisticated but I think that's pretty good calibration using existing technology and cheap obsolete equipment. Now, with the advent of the hp z3801a's coming into the market, I guess the GPS accuracy is available for about \$300 so I may have to upgrade!

73's
dave

Message-ID: <3DD06A76.A19296F8@bw.webex.net>

Date: Mon, 11 Nov 2002 21:41:58 -0500

From: Al Klase <skywaves@bw.webex.net>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: 32V-3 Component Reliability

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

(Sorry for the dupe. Original had about a hundred blank lines before the text.)

Collins Mavens,

I have the RF deck out of a 32V-3 that I'm working on for a friend. We'd like to put this TX on the air and keep it there. C121, a .01 Aerovox Postage-stamp mica inside the L105 shield, is a dead short. Now, the RF deck is fairly lousey with similar capacitors. I'd prefer not to replace them all out of hand, but likewise, I don't ever want to excavate my way in here again.

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73,
Al

--

Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: <http://www.webex.net/~skywaves/home.htm>

Message-ID: <034c01c289f4\$ab28ab70\$fb396f0a@pavillion>
From: "Robert Nickels" <w9ran@ONERADIO.NET>

To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Loran 'A' Chains Present C chains
Date: Mon, 11 Nov 2002 20:38:40 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> with the advent of the hp z3801a's coming into the market, I guess the GPS
> accuracy is available for about \$300 so I may have to upgrade!

Got one a few weeks ago: <http://www.buylegacy.com/app/site/site.nl?alias=/>

Info on using these units can be found at:
http://www.realhamradio.com/GPS_Frequency_Standard.htm
and
<http://www.qsl.net/kt4qw/3801des.htm>

Amplified GPS antennas are available from Arnie Speer arnies@mindspring.com
and suitable 48 volt power supplies can be obtained from Jameco for around
\$30.

Definitely not as nostalgic as a BC-221, but a pretty cool way to get your
very own "part in a billion"...

73, Bob W9RAN

Message-Id: <5.1.0.14.2.20021112065303.04130e78@admin.muohio.edu>
Date: Tue, 12 Nov 2002 07:03:14 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: "James C. Garland" <4cx250b@muohio.edu>
Subject: Re: Loran 'A' Chains Present C chains
Cc: "boatanchors@theporch.com" <boatanchors@theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hi Gang,
Bob is as crazy as I am. I also recently bought one of the HP3 Z3801A GPS
time base receivers (surplused by cellphone companies, because of a change
in standards, but they're nearly new), and use the 10Mhz output to control
my Dana-Racal 1992 counter (with 9 digit display). Now I can align my
Drake 1A calibration to a part per billion! (heh, heh).

Actually, it's uncanny to hook a wire to the 10Mhz output of the device and
listen to it on a receiver. It's dead zero-beat with WWV and will stay that
way forever. Actually, it's considerably more accurate than WWV, because

there's no propagation distortion. You also get a great clock display on your computer. Of course, who needs it? But then, who needs ANY of this stuff we collect? I mean, we're all fanatics, right?

73,
Jim Garland W8ZR

At 09:38 PM 11/11/2002, you wrote:

> > with the advent of the hp z3801a's coming into the market, I guess the GPS
> > accuracy is available for about \$300 so I may have to upgrade!

>

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>and

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>Definitely not as nostalgic as a BC-221, but a pretty cool way to get your
>very own "part in a billion"...

>

>73, Bob W9RAN

Date: Tue, 12 Nov 2002 09:21:57 -0500

From: Mike Feher <n4fs@monmouth.com>

Subject: Re: Loran 'A' Chains Present C chains

To: Old Tube Radios <boatanchors@theporch.com>

Message-id: <008401c28a57\$017c33e0\$086dbd18@n4fs>

MIME-version: 1.0

Content-type: text/plain; charset=iso-8859-1

Content-transfer-encoding: 7BIT

Dave & Group -

I have an Austron 2100F that I use for frequency comparison. I also have a good HP Cesium, several Rubidiums and two Z3801As. I find the Cesium to be the best for short term comparisons, often hitting the limit of 1⁻¹³ on the Austron. The Z3801A averages about 4⁻¹² on the Austron. My question is, what type of antenna are you using on your Austron, or any one else in the group that may have this setup. Mine came from ebay, not nearly as cheap as you mentioned. I also received a passive loop antenna with mine. It was in

the original Austron box, but had no markings on the loop. What gets me is that there are only 2 turns inside the shielded pipe for the loop itself. It just does not seem like it is nearly enough for 100 KHz. There is also a matching transformer (cup core type) and a BNC. I have a very good solid state Sierra VLF field intensity receiver which about saturates on the most sensitive setting just with my thumb on the antenna post at 100 KHz, but I cannot even hear Loran on the Sierra using the loop. Any ideas? The 2100F locks on in a few minutes with it, but, I still suspect that this is not the right loop for the 2100F. Thanks for any suggestions any one may have to offer. 73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell NJ, 07731
(732) 901-9193

----- Original Message -----

From: "Dave Metz" <metzd@intelos.net>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Monday, November 11, 2002 10:11 PM
Subject: Re: Loran 'A' Chains Present C chains

> I have used an Austron 2000C loran receiver for a few years to calibrate
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> dave
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>

End of BOATANCHORS Digest 3414
